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ABSTRACT

This document presents the findings of the National Advisory Council on Nurse Education and Practice regarding the role, education, and supply of clinical nurse specialists (CNSs). The first section of the report examines the following eight background issues: (1) early development of the CNS; (2) current CNS supply; (3) roles and impact of the CNS; (4) Section 821 of Title VII; (5) funding under Section 821; (6) curriculum; (7) production of CNSs; and (8) credentialing. The remainder of the report explores the following four proposed goals: (1) to provide adequate health care services; (2) to maximize the effect of federal funding for CNS programs; (3) clarify the role of the CNS in the changing health care system; and (4) to assure the CNS within the health care delivery system. Appended are the following papers offering different perspectives on CNS master's degree preparation and practice: (1) "Nursing Academic Administrator's View: Traditional and Blended Preparation" (Carole A. Anderson); (2) "ANE [Advanced Nurse Education] Project Director's View: Acute Care NP [Nurse Practitioner] Training Program" (Karren Kowalski); (3) "ANE Project Director's View: Advanced Practice Psychiatric/Mental Health Nursing Option" (Jane H. White); (4) "Behavioral Managed Care Administrator's View: Traditional CNS Employment in he Private Health Care Sector" (Shirley M. Repta); (5) "Academic Health Center Nursing Administrator's View: Traditional CNS and CNS/NP Employment" (Maryann F. Fralic); (6) "Practicing CNS--Traditional Role View" (Angella Olden); and (7) "Practicing CNX/NP--Blended Role View" (Janet Ruth Walczak). (Contains 63 references.) (MN)

Federal Support for the Preparation of the Clinical Nurse Specialist Workforce Through Title VIII

NATIONAL ADVISORY COUNCIL ON NURSE EDUCATION AND PRACTICE

REPORT TO THE SECRETARY OF HEALTH AND HUMAN SERVICES

July 1999

U.S. Department of Health & Human Services
HRSA
Health Resources & Services Administration
Bureau of Health Professions
Division of Nursing

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EXECUTIVE SUMMARY

The National Advisory Council on Nurse Education and Practice (NACNEP), established by Title VIII of the Public Health Service Act, has responsibility to advise the Secretary on nursing workforce issues. This report presents its findings and recommendations on the role, the education and the supply of clinical nurse specialists (CNSs). The Council's policy issues, proposed goals and options included in the report support the need for Federal funding to prepare clinical nurse specialists.

NACNEP initiated its review of a number of issues in the nursing education system and in the labor market surrounding CNSs in November 1997. CNSs are defined as registered nurses, who through a graduate degree program in nursing, have developed expertise within a specialty area of nursing practice. The traditional formal academic preparation of the CNS has included direct practice as well as the roles of educator, administrator, consultant, researcher and change agent. More recently, the case manager role has been added to the preparation.

The implementation of the role of the CNS has been subject to numerous interpretations. The data show that those prepared to practice as CNSs fill a variety of roles within the health care delivery system. Among the 56,500 employed RNs with formal academic preparation to practice as CNSs in March 1996, 21 percent were in positions in which they were teaching nursing students or nurses in practice and 18 percent were in positions with mid-level or top management position titles. About 4 percent of the 56,500 were in case manager positions. Twenty-two percent, or 12,500 of the 56,500 employed CNSs with formal academic preparation were in positions in which they were called clinical nurse specialist. However, the total number of RNs with the position title of CNS is far greater than the number with the title and formal academic preparation. It is estimated that only about 35 percent of nurses with CNS position titles were among those with formal CNS preparation.

Although the first CNS educational program was established in 1954, the major development of the CNS role occurred during the 1960s and 1970s as changes in nursing science and practice were rapidly evolving. Early developments of the role were concentrated on the hospital as the setting for practice. More recently, the concept of the CNS role has changed, enabling the CNS to contribute to improved quality and cost-effective services during the transition of health care delivery from hospital to community to integrated, seamless health care. Reports in the literature show that CNS clinical interventions resulted in increased quality of

patient care across settings and to reduced costs over time. Regardless of clinical nursing specialty and specialty practice site, the studies have shown that the CNS role based on knowledge and clinical competence effectively improves patient care outcomes.

A specific authority to support graduate nursing educational programs was first established in Section 821 of the Nurse Training Act of 1975. Initially, Section 821 supported the development and expansion of graduate programs to prepare CNSs, nursing faculty, administrators and researchers. The 1992 legislation focuses on projects to prepare CNSs, nursing faculty and public health nurses. Following the publication of the program regulations in 1978, and until 1983, six specialties were the focus for the clinical nurse specialty funding. These were geriatrics, community health, maternal and child health, acute care, medical/surgical and adult nursing. In 1983, the program regulations were revised and the specification of these six clinical specialties was discontinued but a funding preference for programs preparing clinical nurse specialists in geriatrics was in effect until 1987.

Appropriations for Section 821 steadily increased from 1976 to 1989 from $2 million to $17 million. Appropriations were relatively stable during the 1990s at about $12 million annually. In the 21 years of support between 1976 and 1997, nearly 80 percent of the total program dollars went to support educational programs in the clinical nursing specialties. While about 25 clinical nursing specialties were supported, the majority of the awards were in the six clinical nursing specialties that were targeted by the 1978 regulations.

The development and growth of the CNS role has been affected by the increased interest in the nurse practitioner (NP) role. Data on master's degree nursing educational programs show annual decreases in the proportions of the total enrollments and graduations from CNS-focused programs. Between March 1992 and 1996, the number of RNs with formal preparation to practice as CNSs increased only 2.5 percent compared to a 47 percent increase in the number of NPs. Joint clinical nurse specialist and nurse practitioner (CNS/NP) educational programs have proliferated and growing numbers of nurses are prepared for both roles. As changes have occurred in the curricula, the distinctions between the traditional NP and CNS roles have become less distinct.

As part of its review of the issues surrounding the place of the CNS in the health care delivery system and the emerging trends, the NACNEP focused on what might be the appropriate use of Federal resources in assuring that expert clinical nursing was available to enhance the health care of the Nation's population. To that end, the Council developed a proposed set of policy goals and options to respond to these issues. The following goals were set by NACNEP:

- ***Provide Adequate Health Care Services***
  Federal resources should be used to assure the advanced preparation of highly skilled RNs to meet the complex health care needs of individuals, families and populations.

- ***Maximize the Effect of Federal Funding for CNS Programs***
  Federal nursing education funds should be targeted to meet the greatest health care needs of the population and be responsive to the changing health care environment.

- ***Clarify the Role of the CNS in the Changing Health Care System***
  The Federal government should support and encourage the profession's efforts to standardize the requirements for the educational preparation for core competencies of the CNS.

- ***Assure the CNS Within the Health Care Delivery System***
  Federal funds should be used to ensure that the necessary data and analytical tools are available to study the contributions that CNSs make to quality health care and the demand for such practitioners in this rapidly changing health care environment.

INTRODUCTION

The health care of the population is of prime importance to the nation's economic and social well-being. In the last few years significant changes have been made in the ways in which health care is paid for and delivered. These changes affect not only how the system providing health care is structured but also the number, type, and utilization of the providers of the care. Registered Nurses (RNs), the largest of the health care occupations, are key providers within the system. They function in multiple roles throughout the health care arena. Central to the concerns of the nation in ensuring the health of its population are issues surrounding the overall nurse workforce and the availability of appropriately qualified nurses to fill each of the nursing roles.

NACNEP, in fulfillment of its responsibility to advise the Secretary of Health and Human Services on issues affecting the nurse workforce, has examined several facets of this workforce. They have reviewed the issues arising from an examination of the basic registered nurse workforce.[1] They have also looked at the issues concerning NPs from several different aspects, including working with the Council on Graduate Medical Education on the joint considerations arising out of multi-provider primary care.[2,3,4]

At its November 1997 meeting, NACNEP initiated the review of issues pertaining to the role, the education and the supply of CNSs. The implementation of the role of the CNS has been subject to numerous interpretations. The data show that those prepared to practice as CNSs fill a variety of roles within nursing. In a publication of the Interagency Conference on Nursing Statistics (ICONS) the CNS is defined as a registered nurse, who, through a graduate degree program in nursing, has developed expertise within a specialty area of nursing practice. In addition to the delivery of direct patient/client care, the role may include consultative, educational, research and/or administrative components.[5] The traditional formal academic preparation of the CNS has included direct practice as well as the roles of educator, administrator, consultant, researcher and change agent. More recently, the case manager role has been added to the preparation. While ICONS had an alternative definition as well which stated that expertise can also be obtained through either post-basic education program, continuing education courses or clinical experience, nursing service and educational leaders are in agreement that clinical expertise in a specialty area is achieved through a graduate degree. The requirement for the master's degree is reinforced by the definition in the Balanced Budget Act of 1997 which defines a CNS as an individual who is a registered nurse and is licensed to practice nursing in the State in which the services are performed, and holds a master's degree in a defined clinical area of nursing from an

accredited educational institution.[6] Yet, a substantial proportion of those who have a position title as a "clinical nurse specialist" do not have graduate degrees.

The formal academic and informal on-the-job training preparation of the CNS are further complicated by the changes occurring within nursing education. The development and growth of the nurse practitioner role have made inroads into the numbers who are being prepared as CNSs. Joint clinical nurse specialists and nurse practitioner (CNS/NP) educational programs have proliferated and growing numbers of nurses are prepared for both roles. As educational programs begin to prepare joint CNS/NP advanced practice RNs, the CNS programs are adding primary care components to traditional specialty care preparation. Additionally, NPs are being prepared in specialties, such as acute care and psychiatric/mental health behavioral care. While these curricula evolve, distinctions blur between the traditional NP and CNS roles.

The Federal Government, through Title VIII of the Public Health Service Act, has a long-standing commitment to the preparation of CNSs. NACNEP, in the light of the recent changes in the health care delivery system and in the CNS educational programs, felt that it was necessary to consider the possible effect of these changes on the appropriate use of Federal funds.

BACKGROUND

Early Development of the CNS

Although the major development of the CNS role occurred during the 1960s and 1970s as changes in nursing science and practice were rapidly evolving, the first program was initiated by Rutgers University in 1954. The idea of the master's-level nurse prepared as a specialist in a clinical area was a change from the traditional functional preparation in teaching, administration, or supervision. Specialists in clinical practice were developed for the purpose of improving the quality of nursing care provided to patients and their families during the 1960s when significant advances in technology paralleled advances in cardiovascular and pulmonary surgeries.

As the role evolved in the 1970s questions arose about how the CNS should be prepared, how the functions and responsibilities should be defined, and how the CNS should fit into the organizational structure of hospitals. Early CNSs were described by a variety of titles (nurse clinician, clinical associate, liaison nurse, clinical supervisor, CNS).[7] In 1970, an analysis of the core functions of the CNS identified them as: a) the assessment of nursing needs of patients and the development of nursing care plans based on knowledge of nursing, medical, biological and social sciences and generally directing the provision of nursing care in the patient unit; b) consulting with others as needed and making appropriate use of available administrative and organizational channels in support and maintenance of nursing performance; c) setting and evaluating standards of clinical nursing practice in the unit; d) teaching to improve clinical competence of the nursing staff on the unit and teaching patients, and e) introducing nursing practice innovations and refining nursing procedures and techniques and investigating specific nursing practice problems.[8]

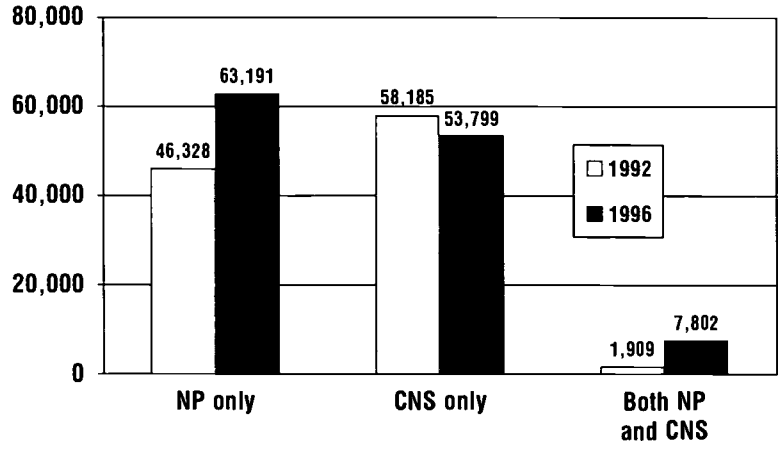
Current CNS Supply

Currently, according to the National Sample Survey of Registered Nurses of March 1996, an estimated 61,600 RNs had formal academic preparation to practice as CNSs.[9] Of these, about 7,800 were also prepared as NPs. The number of RNs prepared as CNSs has not exhibited much growth, unlike the growth in the number of RNs prepared as NPs (See Figure 1). Since March 1992, those prepared as CNSs increased only 2.5 percent compared with an increase of 47 percent in the number prepared as NPs. The March 1996 study also documented a significant difference between CNSs and NPs. As can be seen on Figure 2, only about 5 percent of the CNSs came from minority backgrounds compared with 12 percent of the NPs.

Ninety-two percent, or about 56,500 out of the 61,600 CNSs, were employed in nursing. Half the employed CNSs, an estimated

Figure 1

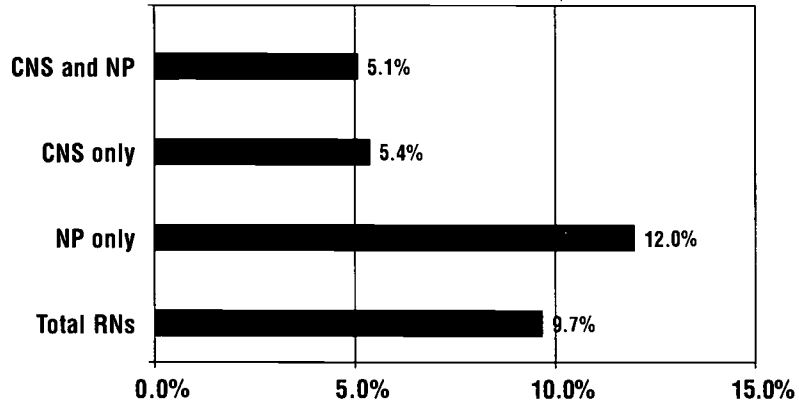
NUMBER OF RNs PREPARED TO PRACTICE AS NURSE PRACTITIONERS AND/OR CLINICAL NURSE SPECIALISTS, MARCH 1992 AND 1996



Source: Division of Nursing, National Sample Survey of Registered Nurses

Figure 2

PERCENT MINORITY AMONG ALL RNs AND ADVANCED PRACTICE NURSES, MARCH 1996

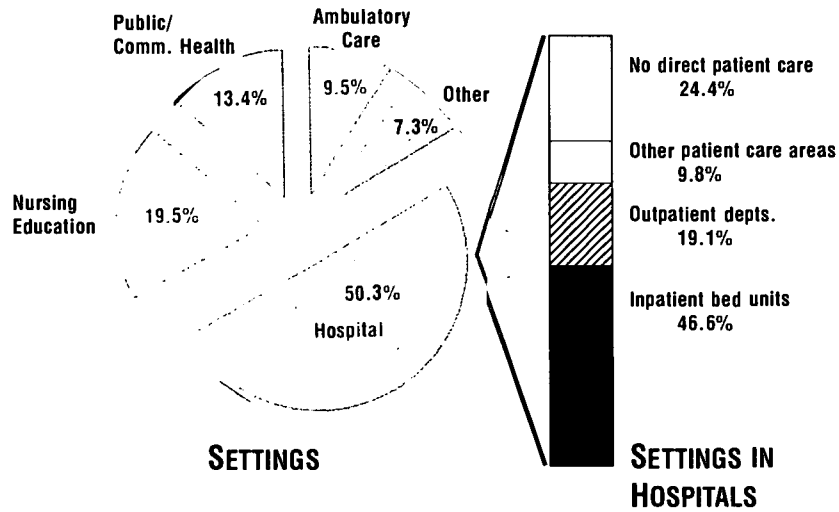


Source: Division of Nursing, National Sample Survey of Registered Nurses

28,400, were working in hospitals with almost half of these (47 percent) providing care in inpatient bed units within the hospital. (See Figure 3) A substantial proportion, 19.5 percent or about 11,000 CNSs, held faculty or administrative positions in nursing educational programs, primarily in baccalaureate or higher degree programs.

Figure 3

EMPLOYMENT SETTINGS OF RNs WHO HAD PREPARATION TO PRACTICE AS CLINICAL NURSE SPECIALISTS, MARCH 1996



Source: Division of Nursing, National Sample Survey of Registered Nurses

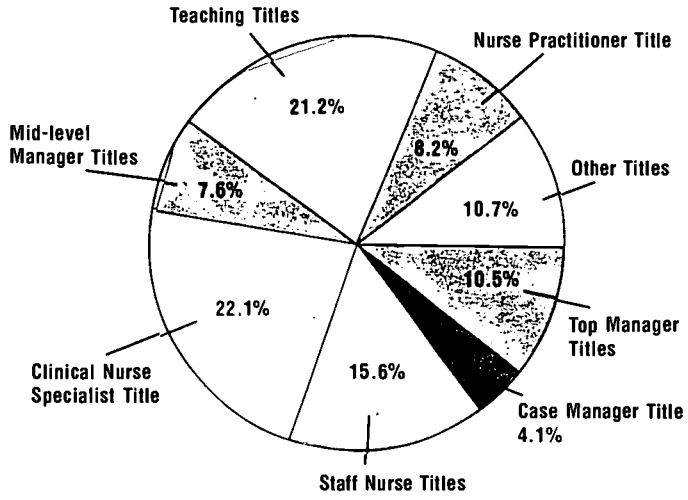
The 56,500 employed CNSs used their broad-based, clinically-focused education in a variety of positions. Twenty-one percent were in positions in which they were teaching nursing students or nurses, either in nursing educational programs or in health care delivery agencies. CNSs also occupied top management positions in nursing education or the health care service areas (10.5 percent) and mid-level management positions in service areas (7.6 percent). About 4 percent of the 56,500 CNSs had positions with the title of case manager. (See Figure 4)

Twenty-two percent of those with formal preparation as a CNS, or 12,500, were in direct care positions with the title of "clinical nurse specialist." The use of the title "clinical nurse specialist," however, is not restricted to RNs with formal preparation as CNSs. As noted on Figure 5, only a little more than a third of the RNs with the CNS title had that formal preparation.

While the National Sample Survey of Registered Nurses does not provide information on the detailed functions of nurses, it does provide a general description of the broad functions the nurses carry out. Based on these data it would appear that the formally-prepared CNSs would be more likely to be practicing as CNSs in the comprehensive role envisioned by the educational programs and by the stated definitions of a CNS than would be those without

Figure 4

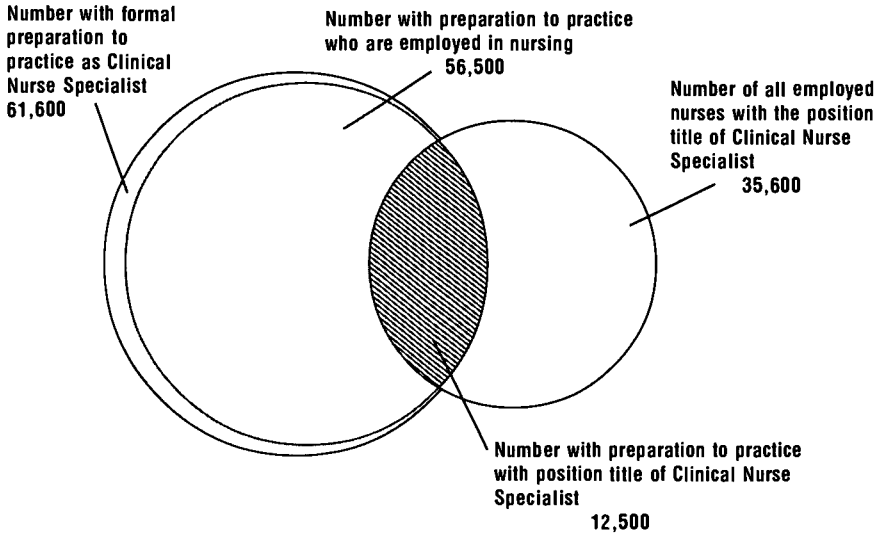
POSITION TITLES OF EMPLOYED RNs WHO WERE PREPARED TO PRACTICE AS CLINICAL NURSE SPECIALISTS, MARCH 1996



Source: Division of Nursing, National Sample Survey of Registered Nurses

Figure 5

ESTIMATES OF CLINICAL NURSE SPECIALIST SUPPLY, MARCH 1996



Source: Division of Nursing, National Sample Survey of Registered Nurses

the formal preparation. For RNs with the CNS position title, the study shows that those without formal academic preparation as a CNS were more likely to spend at least half their time during their usual workweek in direct patient care activities. Those with CNS position titles and the formal academic preparation were more likely not to have a dominant function but to divide their time during the week in a variety of at least two or more of the following functions: administration, supervision, teaching, consultation, research, direct patient care.

The Roles and Impact of the CNS

As defined, the CNS role includes direct practice as well as administration, education, consultation, and research. More recently, the concept of the CNS role has changed enabling the CNS to contribute to improved quality and cost-effective services during the transition of health care delivery from hospital to community to integrated, seamless health care. The newer aspects include those of case manager, coach, systems coordinator, supervisor, gatekeeper, and specialty physician extender.[10] The involvement in these roles is predictable given the CNS history as a change agent. Combining traditional and new roles has given the CNS broad bases for practice. Improved outcomes due to CNS clinical intervention reported in the literature point to increased quality of patient care across settings[11,12,13] and to reduced costs over time.[14,15,16,17,18] Buchan cites five areas in which the CNS effectively reduces cost. These are decreases in the length of stay of patients, reductions in unnecessary tests and procedures, improved collaboration with physicians, facilitation of quality control, and limiting overstocking.[19] The expanded role preparation of CNSs has led to their employment within and across settings and job categories, sometimes including more than one specialty nursing focus. The literature documents that in the health care delivery system CNSs carry out all the components of their role with a focus of significantly improving patient care. Several authors show how the flexibility of the CNS's roles leads to better coordinated and seamless health care services in long term care.[20,21] Vollman and Stewart show that the systems orientation of the CNS also leads to better health care services.[22] The CNS teaching/coaching role assures more knowledgeable and skilled professional and paraprofessional nurses in hospital, community and home health sites.[23,24] The same educator roles may be used to teach community and family caregivers.[25] The value-added importance of the CNS in improving care is seen in nearly all clinical nursing specialties in traditional and nontraditional settings. Two, now classic studies, done in traditional health care systems are also relevant. Brooten's 1986 study showed safe care delivery and cost savings of over $18,000 for each low birth weight infant discharged early with CNS follow-up care.[26] McCorkle's 1989 study indicated that oncology patients' improved outcomes, including less complications and adverse symptoms as well as outpatient treatment instead of traditional inpatient care, result from using oncology CNSs in their care.[27] A closer look at CNSs within the clinical nurse specialties follows.

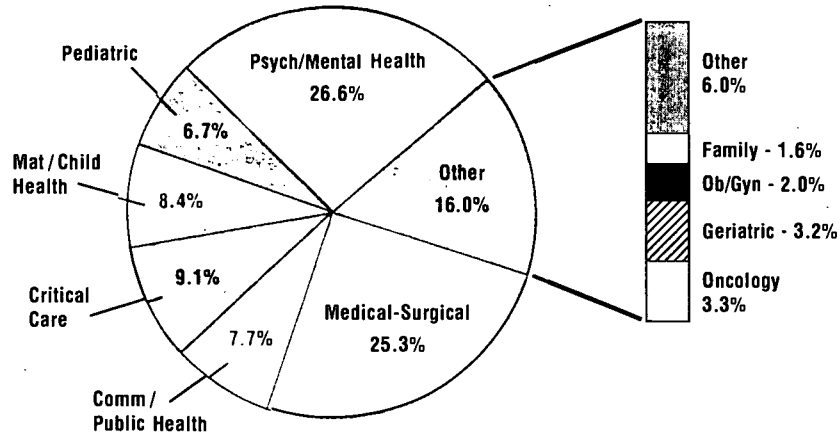
Substantial proportions of the CNSs are employed in hospital inpatient settings. Based on data from the National Sample Survey of Registered Nurses, in March 1996, an estimated 15,600 CNSs or CNS/NPs had medical/surgical nursing CNS preparation and 5,600 had critical care CNS preparation. These nurses represented about 34 percent of the 61,600 CNSs. (See Figure 6)

The Institute of Medicine (IOM) Committee that studied the relationship between nurse staffing and the quality of care in hospitals examined the role of nurses with advanced practice preparation, which includes CNSs, within the changing health care system and concluded that "high-quality, cost-effective care for certain types of patients, particularly those with complicated or serious clinical conditions, will be fostered by the use of such advanced practice nurses." The Committee further indicated that increased use of such nurses would improve cost effectiveness and may yield both improved outcomes and lower costs. Therefore, they recommended that hospitals expand their use of RNs with advanced practice preparation to provide clinical leadership and cost-effective patient care.[28]

Dr. Maryann Fralic, at the November 1997 meeting of the NACNEP identified the contemporary hospital scene as one with "hypersick, hyperacute patients with hypershort stays." She indicated that the requirement for faster, better, quicker care in a constantly growing capitated environment and the need for safe, quality care despite constant financial pressures will only continue. She pointed out that CNSs, with their systems approach to staff

Figure 6

EDUCATIONAL SPECIALTY OF RNs PREPARED TO PRACTICE AS CNSs, MARCH 1996



Source: Division of Nursing, National Sample Survey of Registered Nurses

development, clinical practice management and consultation, manage the trajectory of clinical care and processes, serving as a "radar screen" of patient care. She believes that the market demand for experienced clinical nurse specialists has contributed to the "qualitative nursing shortage" experienced in hospital settings. For example, experienced CNSs are being recruited away by managed care organizations and home health care agencies. Hospitals, turning ever more general hospital beds into critical care or monitor care beds, are reassembling their CNS staff. Fralic indicates that CNSs can move from education to practice to consultation to case management to critical paths development and are a critical resource in times of very rapid change.[29]

Angela Olden and Janet Walczak confirm Fralic's views in their descriptions of their roles, one as a traditional CNS and the other in a joint CNS/NP role, at Johns Hopkins Hospital. Each deals with clinical practice imperatives that demand high quality cost-effective care, staff development/education responsibilities from skill training to cross training and organizational improvement to assure accreditation and reimbursement. Olden demonstrated how the CNS implemented care across specialty units and with interdisciplinary staff resulting in greater patient satisfaction, improved productivity and cost effectiveness across the antenatal, neonatal and perinatal units.[30] Walczak combines the traditional role of the CNS with the NP role that allows her increased patient care responsibilities. She notes that although all of the medical staff rotates, she remains the one constant provider who is knowledgeable about patient care, patient outcomes and resource allocation on the specialized medical units.[31] Her role is also expanding the CNS scope of practice in the inpatient setting, especially in acute care, emergency room and intensive care, critical areas of increasing demand for registered nurses.[32]

Although neither a specialty care CNS nor a primary care NP, the preparation of the acute care nurse practitioner (ACNP) includes complex nursing care that entails the increasing orientation around narrow specialties and impressive use of very sophisticated technologies.[33] The ACNP model, which provides for house staff substitution in intensive care units and across settings, is the fastest growing specialty in nursing. The number of educational programs for ACNPs has increased 25 percent between 1992 and 1996.[34]

Another major group of CNSs, psychiatric/mental health CNSs (P/MH CNS), number about 16,400, or 26.6 percent of the 61,600. The current interest in integrating psychiatric/mental health services in the primary care setting increases the importance of the preparation of practitioners in this specialty. The focus of psychiatric/mental health CNS educational programs in the current environment is community-based and includes brief therapy modalities with complex psychiatric disorders, such as dual diagnoses,

alcoholism, schizophrenia and bipolar disorder, and physical problems. Dr. Jane H. White, in describing the program at The Catholic University of America (CUA) at the November 1997 NACNEP meeting, pointed out that both the clinical skills and population-based skills such as program planning, program evaluation, program management and health policy included in the CUA curriculum prepare P/MH CNSs to assure quality and cost-effective care.[35] Dr. Shirley Repta, in her discussion of CNSs in managed care at this meeting, cautioned that their use be considered in terms of bringing a good blend of breadth and depth to helping people achieve the highest level of functioning in a cost-effective, outcome-based environment rather than on providing a less expensive alternative to physician services. Repta further pointed out that the aggregate focus in the preparation of the P/MH CNS was needed in the current and future behavioral care delivery system.[36]

Davis points out that early detection and treatment of psychiatric disorders are expected to occur in primary care practices in growing numbers where currently over 85 percent of patients with mental disorders (5 percent with addictions problems) are not recognized or treated.[37] Davis comments that psychiatric and primary care physicians will not be able to meet the increased need for integrated behavioral health care. It is estimated that the cost of all health care decreases when mental disorders are treated.[38] Increases in the elderly population, Medicare expenditures and geriatric wellness and illness services require the specialty preparation of the geriatric nursing specialist to deliver specialty skills, programs for at risk elders and effective geriatric patient and family teaching.[39] A study by the General Accounting Office (GAO) indicated that nearly two million Americans aged 65 or older suffer from some form of Alzheimer's disease. Most of these individuals were between 75 and 89 years of age. The GAO estimated that, by 2015, more than 2.9 million will have Alzheimer's disease. At least one-half of these patients will need assisted care.[40] In its study of the relationship of nurse staffing and the quality of care in nursing homes, IOM concluded that research in this area provided "sufficient evidence that presence of geriatric nurse specialists/practitioners enhances quality of care in nursing homes." IOM therefore recommended that nursing homes use such practitioners in both leadership and direct care positions.[41]

These trends support combined CNS/NP preparation in geriatric specialty care because of the mix of primary and specialty skills that will be needed. Specialty nurses in geriatrics will be needed to work in current and evolving elder health care settings, to develop cost-effective programs for the elderly, including effective and efficient use of technology, and to provide seamless primary, acute and long term care and information management for the older population.[42]

The need for clinical nurse specialists in nursing homes and in other long term care facilities will increase as the population ages

and becomes more frail. The increasing inability to meet the health care needs of the elderly, especially poor elderly in inner city and rural underserved locations where primary care physicians may not care to practice, support the need for continued support to prepare CNSs or CNS/NPs to provide geriatric services.[43] Both increased geriatric service needs and technology use in long term settings will require clinical nurse specialists to provide complex care to the elderly.

The National Sample Survey of Registered Nurses estimated that there were about 1,750 CNSs and an additional 400 RNs who were CNS/NPs with specialty preparation in geriatrics in March 1996. These RNs are about 3 percent of the total CNSs.

An expanding specialty for CNSs is that of public and community health. The market demand for community health and public health nurses is expected to grow in the capitated health care system where the needs of special populations and preventive services are increasing. Based on data from the National Sample Survey of Registered Nurses, only 7.7 percent of the 61,600 CNSs, or about 4,700, specialized in community/public health. This strongly suggests a critical shortfall in CNSs to provide and/or manage care for special populations such as the homeless, poor rural and urban inner city elderly, those with HIV/AIDS, poor underinsured or uninsured children and adults, victims of violence and vehicular accidents, and teen pregnancies. Many of these special populations require expert clinicians skilled in caring for complex health problems with competencies in community program development, implementation and evaluation.[44]

Health departments and other public health systems are redefining themselves to adjust to the changes in the way coverage under Medicaid funds is provided. The public systems are forced to seek alliance with managed care groups to qualify as providers of services, thus challenging their responsibility to provide leadership in the provision of public health services as recommended by IOM in *The Future of Public Health*.[45]

Of major importance is the role of community and public health agencies in meeting the Healthy People Objectives 2000 and 2010. IOM reports a crisis at the community level and speaks to the value-added effect of providers with joint expertise in clinical and aggregate/population-based services.[46] Although all CNSs need to be prepared with content in population-based care,[47,48] the community health CNS is uniquely qualified in that most community health nurses have expertise in both adult clinical care and community aggregate care. The current trend in the preparation of the community health CNS incorporates the planning, delivery and evaluation of aggregate community care and leadership in the provision and evaluation of such care.

The community health CNS role often included a home health care component that has now evolved to a clinical nurse specialty

in its own right. The master's preparation of CNSs in home health care was developed to meet the health care needs in patients' homes or other sites of residence. The home health care CNS uses direct clinical care skills in addition to expertise in case management, consultation, collaboration, and patient and staff education. The American Nurses Credentialing Center adds that the home health CNS "has proficiency in planning, implementing and evaluating programs, resources, services and research for health care delivery to complex clients."[49]

Medicare home health care demands have grown over 600 percent since 1989 and costs have risen from $2.4 billion to $17.7 billion in the same time period. Home health payments represent over 13 percent of Medicare Part A expenditures. The Medicare home health benefits were liberalized because of litigation. Daily skilled nursing care visits following hospital discharge were extended and intermediaries were required to supply clinical evidence to deny coverage.[50]

The focus on Medicare home health has shifted from one of short-term post hospitalization care to long-term chronic care. Both the numbers of home health care recipients and the average number of visits per recipient had more than doubled from 1966 to 1996. Home health care recipients had increased from 1.7 million to 3.9 million and the average number of visits per recipient, from 27 to 72 during that period. Recipients receiving more than 90 visits tripled from six percent to 18 percent from 1989 to 1993. Even more important, over a third of the recipients did not have prior hospitalizations, indicating a shift to chronic long term care in the home.[51] While the Health Care Financing Administration deals with the diversity of issues taxing the system, a moratorium on the admission of new home health agencies to the Medicare program was announced. However, patient demands for home care services continue to grow and to support the need for increased numbers of home health CNSs.

Regardless of clinical nursing specialty and specialty practice site, studies reported in the literature have shown that the CNS role based on knowledge and clinical competence effectively improves patient care outcomes. In critical care, Gurka reported that CNS consultation on units led to prevention of complications for 15 percent of total outcomes, development of new standards of care for 30 percent of outcomes and improvement in nurses' clinical judgment in 55 percent of the outcomes. Preventive care decreases hospital stay, standards of care assure high quality care based on hospital and national standards, and improved clinical judgments promote rapid and accurate diagnosis and treatment thereby avoiding complications.[52] In reporting improved chronic care, Mathew, et. al., documented success in reducing the length of hospital stay of geropsychiatric patients and decreasing hospital resource losses through systems and team education in elder

care.[53] The effective use of telephone consultation by CNSs in post-hospitalized kidney and pancreas transplantation patients showed that CNSs made independent clinical decisions that resolved 80 percent of the problems of these patients. This finding may be the first step in the development of standardized protocols for the most frequently identified problems, thereby assuring prompt and effective resolutions.[54]

There are numerous opportunities for the CNS in the modern health care system with significant potentials for improving the quality of care, providing for better coordination of health care services, and assuring a more skilled and knowledgeable nursing work force through leadership, teaching and coaching. All these lead to more satisfaction with health care practices and better outcomes, ultimately leading to lower costs. However, while the face evidence shows the importance of the CNS role, it does not negate the importance of developing and instituting systematic research that would document the effectiveness of the role. More research is needed to document the outcomes of care provided by CNSs and the related cost-effectiveness across specialties, diverse and medically underserved populations and across the life span.

Section 821 of Title VIII

The Federal interest in graduate nursing education spans more than 40 years. However, it was not until the Nurse Training Act of 1975 that the government provided a specific focus for the preparation of nurses in graduate nursing educational programs. This legislation enabled the Federal Government to respond to the changing health care clinical service and community-based needs of the population by supporting programs to prepare specialized nurses. Historically, Section 821, the section in the law that covers grants for advanced nurse educational programs, had supported the development and expansion of graduate programs to prepare clinical nurse specialists, nursing faculty, administrators and researchers. The 1992 legislation, passed during a time of nursing shortage, stressed advanced clinical preparation and eliminated support for programs that prepared nurse researchers and administrators. This legislation focuses on projects to prepare CNSs, nursing faculty and public health nurses. Since case management was viewed as an aspect of administration, programs to prepare case managers without concurrent clinical nursing specialty preparation were not eligible for support. However, case management as a functional component of a program to prepare CNSs remains eligible for support.

The availability of Advanced Nurse Education (ANE) funds to support new clinical nursing specialties often makes it possible for schools to prepare a cadre of CNSs to respond to evolving diseases in a timely manner. For example, in the early 1980s, ANE funds supported the first programs to prepare clinical nursing specialists to care for people with HIV/AIDS. In addition to enabling educational programs to respond in a timely manner to identified

health care needs, these funds frequently provide support for new specialties without the delay sometimes encountered by State or institutional rebudgeting.

The Nurse Training Act of 1975 was implemented in 1976, but regulations governing the program were not published until 1978. From 1976 to 1978, all eligible projects to prepare CNSs, regardless of specialty, were reviewed. The publication of the program regulations in 1978 specified graduate preparation in six clinical nursing specialties. These specialties were geriatrics, community health, maternal and child health, acute care, medical/surgical and adult nursing. Projects in geriatrics, community health and maternal child health clinical nursing specialties were singled out for funding preferences. These projects were funded first, in order of preference. All six clinical nursing specialties were considered in need of clinical expertise because of the specialized care required in the populations served and the need for an adequately prepared nursing workforce to provide such care. These regulations remained in force until revisions were made in 1983.

In the 1983 regulations, the specification of the six clinical nurse specialties was discontinued due to considerable gains in the number of programs available in the specialties. Programs with the geriatric specialty were a possible exception to this increase in programs. Therefore, the revised regulations continued a funding preference for projects to prepare CNSs in geriatrics until 1987.

Program materials for Section 821, based on the 1983 revised regulations, describe the clinical nurse specialty as "a specific area of advanced clinical nursing theory and practice addressed through graduate education in nursing. Clinical nursing specialties prepare the nurse to provide direct patient/client care to individuals or to population groups. A nurse completing a course of study in a clinical nursing specialty is expected to be eligible for a national certification examination in the direct advanced practice of nursing."[55] This definition preserves the strong clinical feature of the clinical nurse specialist role and the expert level of the advanced practice nurse. It is consistent with the changes in the 1992 legislation.

Funding Under Section 821

Section 821, in the 1992 legislation, provides support for master's degree programs to prepare CNSs, public health nurses, educators and for doctoral programs. Appropriations for Section 821 steadily increased from 1976 to 1989 from $2 million to $17 million. The decade of the 1990s saw relative stability in appropriations of about $12 million annually. The number of projects supported during the years has varied. The number of awards for projects made between 1990 and 1997 averaged 70 annually. In the 21 years of support between 1976 and 1997, nearly 80 percent of the total program dollars went to support educational programs in approximately 25 clinical nursing specialties. The other 20 percent of the

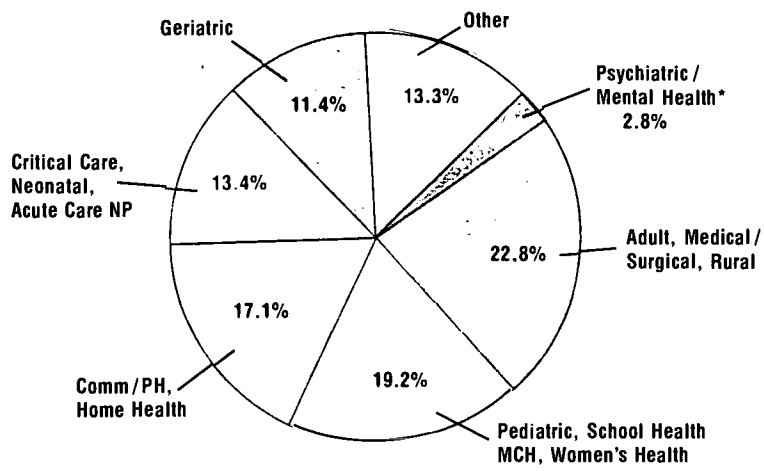
program dollars supported programs to prepare nurse administrators and researchers. As can be seen in Figure 7, the largest single proportion of the funds for clinical nursing specialty programs was for projects to prepare CNSs in medical/surgical, adult and rural nursing, followed by funding for maternal/child health, pediatrics, school health and women's health. Within the "other category", projects included those focused on genetics, oncology, HIV/AIDS, psychiatric/mental health, cardiac rehabilitation and chronic care as well as those directed to care of patients in emergency, burn care units and correctional facilities and, in the earlier part of the 20-year span, anesthesia. These foci reflect the use of Section 821 funds to support the development of evolving clinical nursing specialties based on the nursing care needs of specific populations or changes in the health care delivery system, such as acute and critical care specialties.

Overall, the majority of the awards were in the six clinical nursing specialties targeted for support from 1978 to 1983. In the 20 years between 1977 and 1997, 196 awards were made for geriatric CNS programs for a total of nearly $9 million. The peak of geriatric CNS funding occurred from 1976 to 1982 when 67 geriatric projects were supported. During this period targeted support was granted for geriatric CNS educational programs. Only three geriatric projects were supported in 1997.

The first critical care CNS project was funded under Section 821 in 1977 following major innovations in technology related to treating heart and lung diseases. From 1975 until 1982, there was

Figure 7

DISTRIBUTION OF FUNDS FOR CNS PROGRAMS UNDER SECTION 821, 1976 - 1997



*Between 1980 and 1989, Psychiatric/Mental Health Programs were funded through NIMH.

no particular emphasis on critical or acute care programs. The Federal Government, in 1982, issued a call for clinical practice emphasis grants when the government became concerned about the need for increased clinical practice experience in the clinical component of graduate nursing educational programs. The response led to a significant increase in critical care applications between 1984 and 1989 even though the call did not specify this clinical nursing specialty. Overall, 181 critical care and acute care projects were supported for a total cost of $29 million which accounted for approximately 13 percent of the funds that went for programs in the 20-year period.

Community health nursing and public health graduate nursing programs have been supported by Section 821 funds since 1976. As seen in Figure 7, over 17 percent of the CNS program support has been disbursed for community, public health and home health CNS preparation. Support for psychiatric/mental health nursing programs accounted for less than 3 percent of the total CNS program funding under Section 821 between 1976 and 1997. These programs were supported by Section 821 funds from 1977 to 1979 and from 1991 to the present time. In the interval between 1979 and 1991, Federal support of these projects was through the National Institute of Mental Health. In 1991, in response to a directive from Congress, psychiatric/mental health nursing projects again became eligible for support under Section 821. Both psychiatric/mental health CNS and NP programs are supported by Section 821 funds. The psychiatric/mental health NP program adds a primary care component to the CNS scope of practice. Often, this curriculum includes the entire scopes of practice of both the CNS and NP, while the CNS specialty may or may not include advanced physical assessment. Section 821 supported 41 psychiatric/mental health nursing projects for a total of nearly $5 million since 1977. The largest number of projects for which awards were made in one year was ten, and occurred in 1997, reflecting the recognition of an increased need for this type of program and graduate.

Curriculum

CNS academic preparation is at the master's degree level. The curriculum consists of foundational courses such as nursing theory and research and specialty core including the theory and clinical practice in the specialty. The early curricula were often four or five semesters in length. In the late 1980s, when resource allocations became limited, many programs decreased the length of time and the number of courses in the graduate curricula, including the clinical component. Today's programs are two to four semesters in length. Historically, CNS graduates were employed predominantly in hospital settings where they were regarded as "change agents." Hospital-employed CNSs had no reimbursement mechanisms and little need for outcome studies to support cost effectiveness of the traditional role although documentation of the

contributions of the CNS was strong. In the emerging capitated system for reimbursement for inpatient care, the cost of CNSs sometimes has led to the elimination or reconfiguration of their roles. Anecdotal evidence indicates that some CNSs choose to prepare as NPs to retain or regain positions. In this changing health care environment, preparation as both a CNS and NP seems to offer nurses greater employability across markets.

The changing health care delivery system challenges the CNS educational programs to meet different demands. In the early 1990s the educational system was forced to broaden its specialty curricula and increase the length of its programs to provide students with adequate educational experiences. Primary care components increased the graduate's marketability. This, and professional organizational interest, led to added clinical practice hours that lengthened the programs.

CNSs are one group in the advanced practice constellation that also includes nurse-midwives, nurse anesthetists and NPs. In her presentation to NACNEP at the November 1997 meeting, Carole Anderson reviewed the development of curiculum standards of the four traditional advanced practice nursing groups.[56] Dr. Anderson referred to the American Association of Colleges of Nursing (AACN) publication *Essentials of Masters Education for Advanced Practice Nursing*[57] as an important contribution to the development of standards in the preparation of all the advanced practice nurse groups. This publication addresses the core curriculum across the CNS programs. The AACN document identifies content in the graduate core, including research, policy, organization and financing of health care, ethics, professional role development, human diversity and social issues, health promotion and disease prevention, and theoretical foundations of nursing practice. The document also has an advanced practice nursing core that includes advanced health and physical assessment, advanced physiology and pathophysiology and advanced pharmacology. The document indicates that the advanced practice specialty core should be consistent with professional organizational standards where they exist. Currently, these standards exist for nurse-midwives, nurse anesthetists, NPs and selected CNSs.

The AACN Essentials document references a study in which some "new graduates of [advanced practice] nursing programs reported having no direct care experiences in their master's programs."[58] The document supports the requirement that all advanced practice nursing students preparing for any direct care provider roles must have clinical experience. It recommends a minimum of 500 hours of clinical practice for students in CNS educational programs without identifying the specific content. The document also supports the need for master's degree preparation for all advanced practice nurses, not only CNSs, and graduate nursing core content for nursing administrators and community health nurses. In

supporting the need for case managers to have clinical expertise, the document underscores the need for institutional support of the CNS/case manager curriculum emerging since the early 1990s. The variety of curricula for the CNS prepared at the master's degree level is the educational system's response to providing for the health care needs of the population in the emerging health care system.

Production of CNSs

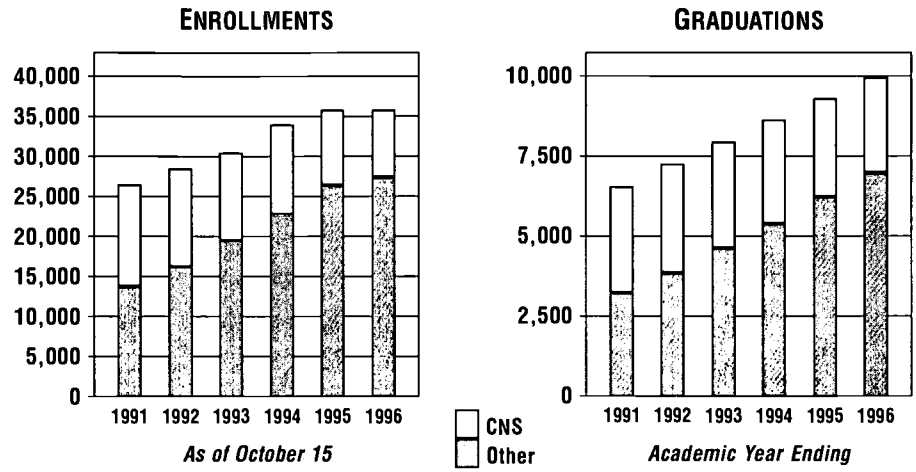
Data on enrollments in and graduations from master's degree educational programs providing preparation to become CNSs are available from two sources: the AACN and the National League for Nursing (NLN). Although the actual data differ, both organizations document the same trend; declining proportions of both total enrollments and graduations from programs preparing CNSs.

Data on the number of enrollments in and graduations from master's degree programs preparing CNSs were first reported by the AACN for the 1993-94 academic year. AACN reported its information in the most detail for that academic year.[59] It was reported that 38.3 percent of the post-RN master's degree graduates in 1993-94 were from programs preparing CNSs, including 2.2 percent of the total graduates from programs identified as "combined CNS/NP" programs. From the data collected at that same time, AACN reported that among enrollees in post-RN master's degree programs in the Fall of 1994, 31.2 percent were in programs preparing CNSs, including the joint CNS/NP programs. In addition to the master's degree programs for those who are already RNs, there are currently about ten programs providing master's degrees for those first entering into nursing (generic master's degree programs). AACN reported that, in 1993-94, 42.9 percent of the graduates from generic master's degree programs and 30 percent of the enrollees in those programs in Fall 1994 were in clinical nurse specialist tracks. AACN data for subsequent years were not at the same level of detail as the 1993-94 academic year data, precluding the possibility of making direct comparisons. However, the decline in the proportion of enrollments and graduations that were CNS is evident. For example, only 16.1 percent of the graduates from master's degree programs in the 1996-97 academic year and 12.8 percent of the enrollments in these programs in Fall 1997 were CNSs.[60] These data do not include those in joint CNS/NP programs, but it is highly unlikely that the data on such programs would increase the overall CNS percentages to the levels they were in the data quoted for 1993-94.

NLN first reported data on enrollments in and graduations from CNS programs for the 1990-91 year.[61] Combined CNS/NP program data are not separately identified by NLN nor do they provide information on the specialties of students in and graduates from generic master's degree programs. However, as can be seen

Figure 8

ENROLLMENTS IN AND GRADUATIONS FROM POST-RN MASTER'S DEGREE PROGRAMS



Source: National League for Nursing

in Figure 8, the proportion of total enrollments that are in CNS tracks have consistently decreased despite increases in total enrollments in post-RN master's degree programs. A similar trend is noted in the data on graduations from post-RN master's degree programs. In the 1990-91 academic year, 49 percent of the 6,555 graduates from post-RN master's degree programs were from CNS tracks. In the 1995-96 academic year, only 28.2 percent of the 9,953 graduates were from CNS tracks. The actual number of annual CNS graduates decreased from 3,212 in 1990-91 to 2,808 in 1995-96. Continual declines in the CNS output of the master's degree programs will further exacerbate the lack of growth in the number of CNSs available for practice and lead to significant decreases in the future.

The National Sample Survey of Registered Nurses documents the shifting focus of the master's degree programs. In reporting on the findings of the survey, only those with a master's degree with a clinical nursing specialty were considered CNSs with formal preparation. As pointed out earlier, the number of formally-prepared CNSs showed very little change between 1992 and 1996, but the number of NPs increased substantially. The 1996 study also showed a significant increase over the 1992 study in the proportion of NPs prepared at the master's degree level. Almost half (42 percent) of the NPs with master's degrees in the 1996 study had achieved these master's degrees since the 1992 study was conducted, reflecting the possible movement of master's degree program emphases toward the NP track and away from the CNS focus.

Credentialing

In addition to graduating from a CNS educational program, obtaining certification from a national body and/or recognition as a CNS or advanced practice nurse from a State agency can be a prerequisite for employment and ability to carry out a full scope of practice. Managed care entities use credentialing in establishing provider panel membership. CNSs may be eligible for provider status for reimbursement purposes from public and private entities based on credentialing. The credentialing process verifies a practitioner's education, training experience and certification.

Dr. Margretta Styles, the President of the American Nurses Credentialing Center (ANCC), advocates a need for national certification in the current and evolving health care system.[62] She indicates that voluntary credentialing was viewed as an advocacy method for professionals, a tool for consumers to judge services and providers and an edge for the provider in the marketplace. The ANCC certifies nurses in 28 nursing specialties and in two modular areas, case management and ambulatory care. Certification for clinical nurse specialists is offered in six areas of specialization: medical-surgical nursing, gerontological nursing, community health nursing, home health nursing, adult psychiatric and mental health nursing, and child and adolescent psychiatric and mental health nursing.

As the delivery system requires experienced and certified nurses to provide care, the importance of certification to continued practice is expected to increase. Although project directors with Section 821 grants for CNS educational programs are asked to identify the national certification examination(s) for which graduates will be eligible, there are no data identifying whether or not the graduates actually become certified.

Specialty certification for CNSs usually requires post graduation clinical practice to document expertise to qualify for the national examination in a clinical nurse specialty. On the other hand, NPs may be eligible for certification for full scope practice indicating that they meet minimum standards of practice at completion of an approved program. The post graduate practice requirement for CNSs following graduation could hamper immediate employment.

Although certification has become increasingly more important in defining the advanced practice nurse, the March 1996 National Sample Survey of Registered Nurses indicated that only 37 percent of the CNSs with formal preparation who were employed in nursing had national certification as CNSs and/or had State recognition as an advanced practice nurse of some type. Twenty-two percent had State recognition and 25 percent had national certification as a CNS. Sixty percent of those who had both CNS and NP preparation were nationally certified as NPs. Some of these nurses also had national certification as CNSs. The increasing need for provider status for CNSs may serve to increase the numbers of

CNSs seeking national certification as advanced practitioners in the clinical nursing specialties to meet credentialing requirements.[63]

Conclusion

The CNS role has evolved for over two decades into a direct clinical service provider role and indirect roles of educator, researcher, administrator, consultant and case manager. Within the last few years, the lack of growth in the number of RNs prepared to practice as CNSs, coupled with decreases in admissions and graduations from CNS educational programs has been viewed as a signal that the usefulness of the role is waning. However, the changing health care delivery system suggests increasing opportunities for the CNS role. Slow but steady trends have been identified that are leading to the reconfiguration and reconceptualization of the role of the CNS in this evolving health care delivery system, providing for stronger and expanded functions across settings for the CNS in the next century. As the population ages and as the country seeks to assure appropriate health care services for those with specialized complex problems in acute and chronic care and in mental health, the availability and viability of the CNS role becomes increasingly important. The Federal contribution has been to support the development and expansion of the CNS educational programs to provide complex care across settings based on the needs of special populations or in response to environmental changes. Continued support for CNS preparation at the specialty level to meet these specific needs is necessary. The CNS provider is a valuable member of the evolving health care delivery team, even as the direct and indirect roles of the CNS continue to change, adapting to changing population needs and the health care marketplace.

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POLICY ISSUES, PROPOSED GOALS AND OPTIONS

Provide Adequate Health Care Services

ISSUE: The rapidly changing health care system requires nurses with specialty preparation who can provide complex clinical nursing services across the continuum of care, and who are well-grounded in clinical administration, management and education. CNSs have the requisite knowledge and skills to fulfill these roles. Evidence has shown that they provide high-quality cost-effective care in hospitals resulting in greater patient satisfaction and improved productivity. They manage clinical care and processes through their systems approach to staff development, clinical practice management and consultation. Research has shown that the presence of such specialists enhances the quality of care in nursing homes. Within their specialty areas and in the various segments of the health care system, they serve as clinically competent role models for both nursing staff and students. Through use of their clinical expertise, CNSs are in the forefront of the development and execution of innovative approaches to the management and delivery of nursing care. Changes in the available health care technologies and treatment regimens and the anticipated aging of the population resulting in increased numbers of people with complex health care needs provide an expanding need for the specialized nurse with the broad-based education of the CNS. Yet, the number of RNs with formal educational preparation to practice as CNSs has shown relatively little increase within the last few years.

POLICY GOAL: Federal resources should be used to assure the advanced preparation of highly-skilled RNs to meet the complex health care needs of individuals, families and populations.

POLICY OPTIONS:

- Federal funds should be used to support master's degree CNS programs.
- Federal funds should be targeted to those CNS programs demonstrating a commitment and evidence of capacity to prepare CNSs from various racial and cultural backgrounds.
- Federal funds should be used to expand existing programs into geographic communities without CNS programs.

Maximize the Effect of Federal Funding for CNS Programs

ISSUE: The primary purpose of Federal monies appropriated for nursing is to further the health of the population through the improvement of the quality of care it receives. In the foreseeable future, it is expected that Federal funds for discretionary purposes will continue to be limited. These limited resources need to be used to maximize the results they would have in shaping the nursing workforce to meet the health care needs of the population.

POLICY GOAL: Federal nursing education funds should be targeted to meet the greatest health care needs of the population and be responsive to the changing health care environment.

POLICY OPTIONS:

- Federal funds should be targeted to support clinical nursing specialties designated to meet changing health care needs of different patient populations.
- Federal funds should be used to demonstrate innovative and effective programs that adhere to quality standards of the CNS educational preparation.
- Federal funds should be used to assess the nature and extent of the clinical components of CNS educational programs.
- Federal funds should be used to promote linkages among service, community and educational institutions to expand the competencies of the CNSs to meet the ongoing and emerging complex health care needs.

Clarify the Role of the CNS in the Changing Health Care System

ISSUE: Changes in the health care of the population have led to changes in the preparation of CNSs giving rise to questions about their scope of practice, effectiveness and utility. These concerns have been confounded by the confusion resulting from the use of the CNS title. In employment settings, the title has been applied to positions for those with and without formal preparation. The titles and the preparations for CNSs and NPs, each, define a role. The combined emerging CNS/NP title and preparation require study to clarify the role.

POLICY GOAL: The Federal Government should support and encourage the profession's efforts to standardize the requirements for the educational preparation for core competencies of the CNS.

POLICY OPTIONS:

- Federal funds should be used to prepare CNS graduates who are capable of exercising the full scope of practice at beginning competence following graduation.
- Federal resources should be used to work in partnership with the profession to explore and clarify the utility and effectiveness of the CNS/NP to insure that minimum standards of both roles are met.
- Federal funds should be used for demonstrations of curricula leading to clinical outcome measurement.

Assure the CNS Within the Health Care Delivery System

ISSUE: Nursing and health services literature document the importance of nurses with specialty preparation to the delivery of quality health care that is cost effective and results in improved patient outcomes within health care service settings. CNSs are academically prepared for the role of direct patient care, as well

as that of educator, administrator, consultant, researcher and case manager. They function in a variety of nursing positions. The continued documentation of how and to what extent CNSs contribute to the delivery of quality cost-effective care to the public and the current and future demand for these practitioners is critical to the continuing assessment of Federal support for educational programs preparing CNSs.

POLICY GOAL: Federal funds should be used to ensure that the necessary data and analytical tools are available to study the contributions that CNSs make to quality health care and the demand for such practitioners in this rapidly changing health care environment.

POLICY OPTIONS:

- Division of Nursing should encourage Federal/State and private agencies maintaining data bases on the delivery of health care services to specifically include the CNS as unique providers.
- Division of Nursing should encourage public/private partnerships in efforts to study the CNS role and functions and their effectiveness in relation to quality patient outcomes and organizational outcomes, including the process and cost of care in the changing health care delivery system.
- Federal government should collaborate in a process that will ensure the development of a data base on the employment of CNSs across health care institutions and sectors.
- Federal funds should be used to support original studies on the demand/utilization requirements for CNSs to support policy decisions.
- Federal funds should be used to monitor trends and develop models to determine present and future needs for CNSs to support funding policy decisions.

APPENDIX

Perspectives on Clinical Nurse Specialist Master's Preparation and Practice:

Traditional and Blended Education and Roles

NURSING ACADEMIC ADMINISTRATOR'S VIEW: TRADITIONAL AND BLENDED PREPARATION

Carole A. Anderson, Ph.D., R.N., F.A.A.N.

I have been given the assignment of discussing the combined CNS/NP role. By way of introduction, graduate education in nursing began in this country in the mid-1940s and gained momentum after World War II. The focus of these graduate programs was the preparation of clinical specialists until 1967 when the first nurse practitioner program was developed at the University of Colorado. With the exception of psychiatric/mental health nursing, clinical specialists were prepared primarily for indirect, functional clinical roles and the roles of educator, researcher, consultant and administrator. The nurse practitioner program, however, focused on the development of a direct clinical role; the assessment, diagnosis and treatment of common illnesses. The psychiatric/mental health program had historically combined both the direct and indirect roles.

The term *advanced practice* was introduced to apply to all nurses in clinical practice prepared at the graduate level; clinical specialists, nurse practitioners, nurse-midwives and nurse anesthetists. Historically what occurred in nursing education was the development of separate programs/curricula for each type of role and further, different clinical areas within those programs. For example, the course requirements for a CNS in pediatric nursing were separate from the courses required for the pediatric nurse practitioners. To some extent, these programs were designed independent of each other to comply with the legislative requirements for funding under sections 821 and 822 of Title VIII of the Public Health Service Act. However, the reality is that there is course content common to preparing nurses for advanced pediatric nursing practice whether as CNSs or NPs.

In 1996, in response to a need for greater consistency in graduate programs, the American Association of Colleges of Nursing

(AACN) published *Essentials of Master's Education in Nursing.* The task force that developed that document dealt with a number of issues: the variety of titles for graduate programs, variation in curricula, and diversity in the requirements for clinical practica. The document outlines the core course content required for all of the advanced practice roles; clinical specialists, nurse practitioners, nurse midwives and nurse anesthetists. AACN's *Master's Essentials* did not address preparation in nursing administration or community health because the task force took the position that these specialties did not include a direct care component. Other organizations such as the National Organization of Nurse Practitioner Faculty (NONPF) and the National Council of State Boards of Nursing are also addressing quality issues in advanced nursing education, licensure and certification.

My own experience illustrates how the current situation developed. In 1986 when I went to Ohio State, there was only a CNS program primarily because the State did not have title recognition for nurse practitioners and therefore, graduates would have little employment opportunities. When nurse practitioners finally did achieve title recognition, we revised our curriculum based on the recommendations of the Master's Essentials and employed the qualified faculty needed to implement the program. In that transition, some of the traditional clinical specialist course content "dropped" out of the curriculum. The most versatile preparation for graduates would be the combined CNS/NP program. However, in order to succeed with this we have found that course content in the areas of consultation, financing, administration, planned change and program planning and evaluation needs to be strengthened.

Another challenge graduate programs face is to prepare students to expand their focus of providing direct patient care to include care of communities and population groups. Graduate programs should be clear about the goal(s) of their programs and also should consider what certification is available to their graduates because, increasingly in the health care industry, certification is becoming an important criterion and quality measure.

Students prepared in the combined NP/CNS programs are prepared for advanced, expert clinical practice, and roles in consultation, education, staff development, patient education, case management and mid-level administration.

ANE PROJECT DIRECTOR'S VIEW: ACUTE CARE NP TRAINING PROGRAM

Karren Kowalski, Ph.D., R.N., F.A.A.N.

Other than anesthesia, the first critical care advanced practice role in nursing was that of the neonatal nurse practitioner. This role started in Colorado and was a spin-off from the Pediatric Nurse Practitioner program started in the mid sixties by Dr. Loretta Ford and Dr. Henry Silver. The neonatal nurse practitioner (NNP) role was launched at The Children's Hospital and St. Joseph's Hospital in Denver; it was created by overworked neonatal physicians; it was a physician extender role. Initially, all the training was by physicians and it was focused on pathophysiology, differential diagnosis and medical interventions, such as umbilical line insertions.

Traditionally, the NNPs worked in the Neonatal Intensive Care Unit (NICU), evaluated normal newborns and attended deliveries. Very quickly, the Denver community standard of care required the availability of NNPs in the hospital around the clock for all obstetrical services to perform newborn resuscitation and stabilization. Additional tasks that evolved as the role expanded to other cities included: neonatal transport for large tertiary services, some teaching of the residents, and the primary NICU provider of continuity of care toward discharge. They also participated in research (primarily in teaching facilities) and many supported research utilization.

The tasks that created consternation within the nursing profession were the invasive procedures, such as chest tube insertion, superpubic taps and spinal taps. These first NNPs were taught as "on the job training," or housed in continuing education departments in schools of nursing. They were not perceived as having a strong academic base, and traditional faculty as well as many nursing leaders were antagonistic toward such activities, and thus to the role. However, with support from the Division of Nursing and other funding agencies, gradually the role moved into graduate education.

In 1991, the Perinatal Nurse Practitioner (PNNP) role was created in Denver and modeled after the NNP role. It was a result of emergent need in the Perinatal Service at a private hospital when the obstetrical residents were withdrawn, leaving the service uncovered. It began as a problem solving process for this crisis and turned into a creative endeavor in which an existing model was used and then fine-tuned in order to meet an intense need. However, there was also an opportunity to create this new role without all the growing pains experienced by the NNP programs. There was an initial philosophical commitment to graduate level

education for these practitioners. In addition, there was an effort to merge some of the traditional CNS role functions with the PNNP role, such as staff education, patient education, research utilization, case management and quality improvement.

The curriculum was developed in a way that incorporated existing graduate educational requirements and basic graduate courses. A series of advanced practice courses that could be used in all of the clinical master's programs were developed. Finally, the specialty track courses (those only applicable to perinatal care) were developed. This model was developed to utilize as much of the existing graduate courses as possible and thus increase the cost effectiveness of the program. The plan was to avoid creating "silos" in which each nurse practitioner program redeveloped every graduate course and customized it to their specialty.

The focus at Rush University is on clinical practice. Consequently, the faculty was interested in how to implement nurse practitioner/advanced practice roles in the acute care setting. As a result, a Division of Nursing grant was developed that would not only support the creation of a perinatal nurse practitioner program in Chicago, but also critical/acute care programs for pediatrics, medicine and surgery. The focus on adult critical care was initiated due to the lack of in-house physician coverage for adult intensive care units. As the Rush program was begun, consultation was sought from the existing acute care programs on the East Coast.

We are currently in the third year of funding for this grant, and the 34 graduates of the program are working in the following areas: fast-paced emergency room (ER), bone marrow transplant, skilled nursing homes, intensive care units (ICUs) in the role of chronic ventilator support person, post anesthesia care units, adult critical care units, and in faculty roles. Dr. Ruth Kleinpell, an Acute Care Nurse Practitioner (ACNP) faculty member at Rush, has done a research study on medical surgical ACNPs from the various programs across the country. She sent questionnaires to each nurse practitioner who took the certification examination to discover where they are working. She had an 80 percent response rate. In Pediatric Critical Care (PCC), we have seven graduates, all of whom are working in Pediatric Intensive Care Units (PICUs) and pediatrics urgent care. In the perinatal program, a total of seven have finished the program and are working as faculty, on perinatal services and in a perinatologist office.

The four perinatal programs across the nation are in close contact. Other graduates are involved in similar activities. However, in Denver, five practitioners cover 24 hours a day in the hospital in support of a large high risk service, including evaluations of laboring patients for private practices and serving as first assistant on cesarean sections.

ISSUES FOR THE FUTURE

As more acute care and critical care nurse practitioner programs open across the country, a critical issue is faculty. Who will teach the students and what qualifications are needed to teach in these programs? The model at Rush is one in which the faculty work .5 full-time equivalent (FTE) teaching in the programs and .5 FTE working in the clinical service. I believe this is a necessity due to the importance of maintaining critical care skills. Faculty will not be able to appropriately teach and mentor if their clinical skills are inadequate. In some areas of the country, if clinical sites cannot carry a portion of the faculty salary, the programs could be in jeopardy.

Another issue is certification. Although a certification examination is available in the medical /surgical specialties, an examination is not yet available in pediatric critical care or in perinatal care. The National Certification Corporation for the Obstetric, Gynecologic and Neonatal Nursery Specialties (NCC) has resisted constructing an examination because, at present, the number of graduates is less than 100 and they are concerned about the finances and the validity and reliability of the examination when less than 100 people take it. The lack of an examination has presented some difficulty in some states for enabling NPs to practice. Some state boards of nursing require successful completion of a certification examination before practicing in an advanced practice role. Being on the forefront means that while one is first with a new and creative idea, not all of the glitches have been worked out.

Another issue of significance is incorrect certification. For example, some hospitals are hiring pediatric nurse practitioners (which is an ambulatory role composed of ambulatory care skills and wellness skills) and with a little "on the job training" putting them to work in the PICU. This is a problem. The skill set needed to function in an intensive care unit is significantly different from the skill set needed to function in an ambulatory setting. Those skill sets are not necessarily interchangeable. This will be a problem for a number of critical care nurse practitioners in the future. Facilities in 2021 will probably be almost all intensive care, and we will need many more appropriately trained ACNPs.

For the 21st century, we must consider very different strategies for delivering nursing education. Educational programs must be considerably more flexible than they have been in the past.

ADVANCED NURSE EDUCATION PROJECT DIRECTOR'S VIEW: ADVANCED PRACTICE PSYCHIATRIC/MENTAL HEALTH NURSING OPTION

Jane H. White, D.N.Sc., R.N., C.S.

Changes in the health care delivery system and the dictates of meeting the needs of the underserved population in the District of Columbia prompted Catholic University to close its traditional CNS psychiatric/mental health program which focused on long term psychotherapy. Hospitals in our area have been decreasing the number of positions for clinical nurse specialists and graduates of our program were having difficulty finding employment. These changes were soon reflected in decreased enrollments. It became apparent that our curriculum needed to be redirected to include skills that would prepare nurses to function in community settings. Needed were skills in physical assessment and advanced preparation in pharmacology and psychopharmacology. Since psychiatric/mental health CNSs in our area have prescriptive authority and they are eligible for reimbursement, as are nurse practitioners, nurse-midwives and nurse anesthetists.

Accordingly, we prepared a grant to focus on the needs of psychiatric patients, most of whom are in the community rather than the hospital. The new curriculum includes preparation in taking physical history and in health assessment. However, if intervention is indicated, clients are referred to other resources, often a nurse practitioner. Students are also prepared for case management of patients with complex problems, such as dual diagnoses, alcoholism, and bipolar disorders. The focus of the clinical role of the CNS has been redirected to in-depth education and training in short term models, psychoeducation models, solution-based psychotherapy and short term rather than long term therapy. This brings the clinical role in tune with the concept and practice of managed care. Population-based care also calls for the ability to develop, manage and evaluate programs for the elderly, community mental health services for AIDS patients, and other programs and services to meet identified community needs. Our program consists of 42 credit hours and can be completed in three semesters and a summer session. One half of the students are enrolled full time, the others, half time. Our program is designed to enroll eight students a year. Admissions are presently only half that number. We attribute this to the time required to inform prospective students of the new curriculum.

We are about to graduate our first three students, all of whom will be working in very creative settings. One will be setting up a comprehensive geriatric mental health program providing inpatient, outpatient, day care and home care in North Carolina.

Another, working with both staff and patients at St. Elizabeth's Hospital, calls herself an "anger clinical nurse specialist," an apt description for her role in developing violence prevention programs in the community. The third expects to work in a new residential treatment center for battered women in Fairfax County, Virginia.

Of the four universities in the area, the program at Catholic University is the only one offering an advanced practice psychiatric/mental health CNS option. For the foreseeable future, there will continue to be an enormous disparity between the number of nurses prepared in this area of practice and the needs of the community.

BEHAVIORAL MANAGED CARE ADMINISTRATOR'S VIEW: TRADITIONAL CLINICAL NURSE SPECIALIST EMPLOYMENT IN THE PRIVATE HEALTH CARE SECTOR

Shirley M. Repta, Ph.D., R.N.

I will address employment opportunities for clinical nurse specialists (CNSs) in the managed care environment. I am well aware that most people do not have a positive view of managed care, but one very positive aspect of this change in the delivery system is the opportunity it affords for nurses in advanced practice roles. I want to challenge this committee to speak to the issue of advanced practice nursing in terms of quality and alternative care rather than "cheaper care." This is the position I regularly advocate in policy planning groups in the health care industry. Emphasis needs to be placed on selecting the most appropriate health care provider for the particular set of circumstances, rather than on substitution of one provider for another solely based on cost considerations.

There are three major roles in which we use CNSs in managed behavioral care. One is as mental health care providers in the networks of contracted professionals. CNSs may provide both psychotherapy and prescriptions for medication, or psychotherapy alone. I am very proud of having achieved policy changes so that CNSs with prescriptive privileges are reimbursed at a higher rate than mental health professionals who do not have prescriptive privileges. I believe that CNSs who are able to prescribe medications provide complementary and integrated care to clients who have special, complex needs.

Another role that is near and dear to my heart is that of case manager. I hire CNSs as internal case managers whenever I can. Currently, three of eight case managers are CNSs. Their level of experience and their ability to integrate care for clients across systems is much greater than that of other mental health professionals. CNSs have a nice blend of depth and breadth. Although they do not have the same in-depth knowledge of diagnostics and physiology that physicians have, they have enough depth to apply knowledge and help clients achieve an optimal level of function. From an economic point of view, our goal is to help people achieve the highest level of functioning they are capable of in an outcome-focused and cost-effective environment.

The third role for CNSs is in the area of program development and direction, both within managed care companies, and in practice settings. Frequently, I find that the most innovative programs have been developed by nurses. This is particularly true in rural areas, where nurses have designed and direct programs to meet the needs of their clientele. Nurses are also making innovations in

primary care, where we are trying to "reintegrate" behavioral health into primary health care. In some instances, CNSs are attending post-master's nurse practitioner programs so that they will have the skills to manage the whole of a client's health care needs. This is particularly important for individuals with chronic psychiatric illnesses, who are frequently unable to obtain adequate medical care through the traditional delivery system.

I would like to add some comments regarding curricula in advanced nursing education programs. I am concerned that the length of many programs has become insufficient to develop the depth of clinical skills and an understanding of the health care delivery system that is needed now and for the future. I notice a difference in the potential of staff who graduated from programs in 1982 and 1984 and those who graduated later. In terms of clinical skills, I look for staff who are future oriented, who can build on a client's strengths, and who are well grounded in the application of short term, solution-based models of care. I also look for staff who understand that health care is a business and that cost is a consideration. We have to help nurses understand that what they do and the decisions they make have consequences. Approximately $180,000 each day passes through the hands of the case managers with whom I work. This is a lot of money to waste, or to use wisely, depending upon the quality of decisions that are made.

I think the idea of distance learning is here to stay, not only distance learning but distance treatment. We're looking at technology to deliver behavioral health care services, and it is the same technology used in distance teaching-learning. I think that teaching people via distance learning will be even more important if behavioral health care services are being delivered in this way. We have found areas in which the nearest mental health care provider is literally three and a half hours away, and if one needs a child psychiatrist, one isn't going to find one. The choice is to get really bad treatment or no treatment. There is an alternative with this technology, although I think there are problems. There are issues in terms of being able to assess a client from a distance. One can't really look in their eyes. However, you can see the patient, you can hear each other, you can actually get quite close. These are ideas that need to be explored in order to deliver quality behavioral health care services in less populated regions of the country.

In summary, employment opportunities with the private sector are good for CNSs. There are many different roles and settings. The balance in breadth and depth that a CNS education provides is extremely marketable in today's delivery system. I urge all to consider reversing the trend to shorten programs and revise the curriculum since the quality that makes the CNS so valuable is slipping.

ACADEMIC HEALTH CENTER NURSING ADMINISTRATOR'S VIEW: TRADITIONAL CNS AND CNS/ NP EMPLOYMENT

Maryann F. Fralic, Dr.P.H., R.N., F.A.A.N.

The perspective that I represent is that of the employing organization, its utilization of clinical nurse specialists (CNS) and nurse practitioners (NP), and the value of those roles to their institutions.

To research this topic, I scheduled a series of individual meetings with a sampling of NPs and CNSs employed at Johns Hopkins. I requested that they talk about their roles, what they did, how they did it, and how they were prepared. The meetings were extremely instructive, and I emerged even more respectful of these professionals, the work that they do, and their clear contribution to the success of their organization.

I next called academic colleagues and program directors and asked about their concept of the CNS and NP roles. The first prepared only CNSs; the second prepared only NPs. The third said that their school prepared both; the fourth said "no one could prepare both CNSs and NPs." It was clear that there was no uniformity or consensus in the field relative to role preparation.

I next attempted to identify the value of the CNS and NP role as perceived by employers. First, the basics: the clinical nurse specialist focuses on a systems approach to development of staff and nursing systems as well as the preparation and continued development of staff for clinical practice. They also serve as expert consultants and expert clinicians, modeling the care of highly complex patients. The focus of the nurse practitioner is on clinical systems, clinical care delivery, and the clinical management of a patient population. Research, education, and consultation are incorporated within the context of clinical care delivery.

Clinical nurse specialists are needed, I strongly believe, to "grow the practice." They groom the young, mentor the present and next generation of nurses, bring new clinical nursing knowledge into the institution, and are integral to developing standards of practice. Their value is in the examination and constant improvement of both the practice and the process of nursing care. The constant enhancement of processes of care means lower cost and higher quality, both essential in today's health care environment, and both inextricably linked. Further, the improvement of clinical processes often occurs with the effective CNS as an integral member of the care delivery team, influential within a team of co-professionals. That is a fundamental concept.

The nurse practitioner's role has evolved successfully as they address the needs of new and demanding health care environments and patient populations. It has been quite exciting to see their increased value and utilization. Many carry program responsibilities, such as being responsible for a breast center managing the clinical care of a population of patients. Or, they may operate clinics with heavy clinic schedules and responsibilities. Many are utilized in oncology, radiation oncology, and management of chemotherapy. In some academic health centers, NPs are used more frequently as the number of residents, interns and fellows decreases in the inpatient setting. In these instances, nurse practitioners are being called into patient management of clinical inpatient populations. Some nurse colleagues contend that the NP in this role is simply being a substitute physician. I personally believe that the nurse practitioner brings far more to this role: comprehensive nursing background, critical thinking, and experience to the management of a patient population. They combine broad clinical experience, clinical judgment and decision making, and an impressive work ethic.

Some NPs are also working in new areas, such as patient management in critical care units. This is tied to the reduction in available physician house staff in some teaching institutions. Those hospitals that have already moved in this direction have been quite satisfied with NPs in this setting, believing that they practice within protocolized care, customizing care as appropriate, planning effective clinical management, and reducing variation in practice.

Many areas of the country are experiencing a very heavy demand for nurse practitioners. Some CNSs elect to prepare for the nurse practitioner role, adding a new cognitive knowledge base, procedural/technical skills and more clinical management of patients and populations. There is a complimentarity between the roles.

A major external environmental impact is the emerging shortage of professional nurses. For example, many hospitals are reporting a serious decrease in the supply of experienced specialty nurses, often resulting in more new nurse graduates in hospitals. Meanwhile, as hospitals continue to convert general inpatient beds into monitored, step down, or critical care beds, the utilization of RNs per bed is increasing in some areas. Thus, we need nurses who are very clinically competent. With the large numbers of new graduate nurses in very acute settings, the expert oversight in orientation and continuing education that the CNS can provide has become critical. Many hospitals are now trying to reassemble a cadre of CNSs to meet this need.

The CNS often has a focus on the organization and the systems within that organization that are needed for the diffusion of new knowledge that impacts nursing practice. They are process

focused, but different in that they focus on practice patterns and staff outcomes. Their system focus is reflected in their expert participation in setting nursing standards for individual patient groups, nursing units, and/or the entire department of nursing. They are important players institutionally in helping to define and maintain the institution's standard of patient care. They can be especially effective in highly valued committee work across the organization. The CNS can be the radar screen for nursing quality, vigilantly observing nursing practice. They do both basic and advanced nursing education, consultation, expert nursing practice, and some variation of nursing administrative tasks in some settings, all of which are valued functions.

The nurse practitioner is clinical process and outcome focused and works with both individuals and groups of patients in programs. They frequently partner in clinical practice with physicians, creating high quality models of care. They also set clinical standards and help to establish protocols both the CNS and the NP teach. They teach house staff, interns, residents, fellows, as well as students of nursing, other health care professionals, and patients and families. Both do the examination and measurement of practice. Examination requires the research function. Measurement requires the evaluation function. The CNS and NP bring their many skills to these critical processes.

There are, however, current harsh, present day health care realities. Here are a few:

- We have a hyper-sick, hyper-acute patient population moving through the health care system at almost warp speed.
- There is a need and constant drum beat in health care organizations that everything must be faster, better, quicker. It is a relentless demand.
- There is steady and inexorable growth of capitated payment. This will continue to put new demands on health care providers and health care organizations.
- The need to keep patient care safe and of high quality, despite incessant financial pressure, is real. We must create lower cost care delivery methods. Organizations will not be able to do this without the best prepared nurses. The advanced practice nurse will be central in helping organizations to create these new, efficient, high quality models of care.
- The care team model will be the model for future care delivery. This is certainly not the old "team nursing". When you have a hypersick patient and a truncated hospital stay, the need for integrated multi professional care delivery is absolutely mandatory. The CNS and NP are essential members of this new team.

So what is the future for both of these roles? I believe that it is extremely bright. These are ultra resilient professionals that are needed in the future health care system. They should be prepared educationally to be wherever patients are and to do whatever it is that patients need. These professionals provide their institutions with enormous flexibility. They can move from education to practice to consultation to case management, to critical path development; they are an essential resource in times of very rapid change. They are a multi-skilled resource, and that is a major nursing strength. We should not consume ourselves with seeking undue clarification and demarcation of roles. We need to allow for an ebb and flow between the roles because that is the way their practice will continue to evolve and become ever more valuable. I believe that we need to focus on their collective contribution to patient outcomes, because they represent what will be increasingly valued in the future.

I view the three Rs of today's health care system to be Relevance, Responsiveness, and Resilience. And that is exactly what these advanced practice nurses are. Their skills mesh perfectly with the many present and future demands of the emerging health care system. Therein lies the very essence of their present and future contribution and value to patient care and to professional nursing.

PRACTICING CLINICAL NURSE SPECIALIST — TRADITIONAL ROLE VIEW

Angella Olden, M.S., R.N.

I am currently employed as a Perinatal Clinical Nurse Specialist at the Johns Hopkins Hospital in Baltimore, Maryland. Approximately ten years ago, the antepartum and postpartum units were combined with the newborn nursery to form the Inpatient Perinatal Unit. Staff in each area were cross-trained to work across the spectrum of care. Within the last year, the staff of the Inpatient Perinatal Unit, which consist of approximately 60 RNs and 25 ancillary support staff, have been cross-trained with the staff of the Labor and Delivery units to provide care to patients at low and high risk from pregnancy through the neonatal period. This model of care was designed to respond to the dictates of a managed care environment that emphasizes care across the continuum and shorter lengths of stay, and that provide capitated reimbursement for health care services. The model also better serves the patient because nurses are knowledgeable and skilled in providing care through the entire maternity cycle.

I see my role as a CNS in terms of three spheres of influence. The first is developing standards of patient care. The second is staff development and nursing education, including responsibilities associated with my joint appointment as a faculty member in the Hopkins School of Nursing. The third sphere includes activities designed to achieve organizational goals.

Let me turn first to standards of care. Two CNSs and I share primary responsibility for development and review of standards of patient care. These standards are based on protocols developed in collaboration with obstetricians, pediatricians and anesthesiologists and are designed to insure consistency among units, such as neonatal intensive care and the newborn nursery. Similarly, we work with the staff of the Post Anesthesia Care Unit to assure that standards of care for patients who have had caesarian sections are consistent with those for patients in the Department of Surgery. Membership on the OB Practice Committee affords me another opportunity to influence the provision of quality patient care. This committee brings together nurses, physicians and administrators on a regular basis to discuss current approaches to patient care. I bring to these meetings findings from nursing research and generate support for research based practice as a means of refining standards of care. These activities account for approximately 15 percent of my time.

The second sphere of influence in my role as perinatal CNS revolves around the development of staff to care for patients on the antepartum and postpartum, and labor and delivery units and

in the newborn nursery. Most of the new graduates employed by the hospital have not yet developed a system's view in terms of patient care and the organization. Cross-training is an important instrument in focusing their attention on providing integrated rather than episodic care. As coordinator of this program, I have prepared approximately 60 nurses, of all levels of experience, over a two year period to care for patients in all areas of obstetrics. Newly appointed staff are encouraged to develop their skills in a supportive environment, and experienced staffs are motivated to become more proficient in all areas of obstetrical nursing practice. As staff broaden their base of clinical practice, they also learn the importance of time and resource management.

Another aspect of my role in staff development is serving as a clinical resource on patient units. Easy access to my office encourages both nurses and physicians to seek consultation on a range of issues. I also make rounds, encouraging staff to identify patients about whom they have concerns so that together we can develop a plan of care or identify additional resources that are needed. Questions that arise may focus on a protocol, treatment procedure or use of a new piece of equipment. Whatever the problem, having an experienced clinician readily available to provide consultation or assistance is central to staff development. From an organizational perspective, these approaches have been reflected in ability to recruit as well as retain staff.

Monitoring the quality of care is also an important part of my role. I develop documentation tools that reflect hospital as well as Joint Commission on Accreditation of Health Organizations (JCAHO) and Association of Women's Health Obstetrics and Neonatal Nurses (AWHONN) standards, and use them in monitoring the care provided by staff, taking care that we capture those elements of care needed by managed care agencies for reimbursement purposes. Approximately 50 percent of my time is devoted to staff development responsibilities, and an additional 25 percent is spent in educational programs in the School of Nursing.

The CNS role also influences the organization's ability to achieve its goals. I need to be attuned to short and long term goals of both the department and the hospital. For example, I am facilitating the process of change as the hospital continues to implement a new patient care delivery model. The organization has also derived benefits from the program of cross-training that enables staff to work in more than one setting. Cost savings have been achieved through increased productivity, better staff utilization and reduction in the amount of overtime. In addition, the CNS supports the organization by developing more efficient work processes, including integrated systems and research based standards of patient care. These activities account for 10 to 15 percent of my time.

Importantly, patients derive tangible benefits from the role of the CNS. For example, we have been able to increase the rate of breast feeding for mothers at discharge from 15 percent to 45 percent over a five year period. This gain is largely attributable to the education of staff. Nurses who are confident in their skills are more likely to be effective in supporting the breast feeding process. In the first hour after birth, nurses help mothers with breast feeding knowing that a first successful experience paves the way for continuing after discharge. In addition, patients tend to view nurses as instrumental in their progress through the health care system if the care and instruction they receive is consistent throughout the maternity cycle. This points up the value of a systems approach to health care delivery. The availability of a CNS contributes significantly to the ability of staff to develop and refine skills needed for this area of clinical practice. New graduates come with a willingness to test new ideas, but they need assistance and support in exploring their ideas in a complex health care setting. They need assistance as well in developing critical thinking and problem solving skills, in setting priorities and in responding to changing organizational needs. My role is to help them become more proficient and to mature professionally. This may take the form of something as basic as help in validating an approach to managing a problem, to assisting in the presentation of a project, or preparing a manuscript for publication. We see an increasing number of graduates from basic nursing programs who have another professional degree and bring different strengths and skills to the practice setting. These individuals want to challenge the system and come up with new ways to do things better and smarter. My challenge is to inspire each nurse to develop her individual professional potential and to be a partner in responding to the needs of an ever changing health care delivery system.

PRACTICING CLINICAL NURSE SPECIALIST/NURSE PRACTITIONER — BLENDED ROLE VIEW

Janet Ruth Walczak, M.S.N., R.N., C.R.N.P.

In my first position as a newly prepared nurse practitioner, I currently care for breast cancer patients in a bone marrow transplant program. I am the primary provider for the women undergoing high dose chemotherapy and peripheral blood stem cell transplants with or without bone marrow. I take care of them during the traditional hospital stay for the high dose chemotherapy and stem cell transplant, as well as in the ambulatory setting for follow-up until they are ready to return to their referring physicians. In addition, I am the primary provider for the women who undergo the transplant process as outpatients in our new BIPOP (inpatient-outpatient continuum of care for the breast cancer bone marrow transplant) program. Women in this program are admitted for the inpatient phase of hydration and continuous infusion high dose chemotherapy and are then discharged to local housing with their caregiver. During the intensive ambulatory phase of their transplant and initial recovery, they are seen daily for evaluation and medications. Then, in the traditional ambulatory setting they are seen twice weekly for continued follow-up prior to returning to their referring physician. The BIPOP patients may be readmitted during the intensive ambulatory phase for acute problems such as fevers, uncontrolled nausea and vomiting, or pain control. In addition, I cover in the ambulatory clinic twice a week for breast cancer patients with unscheduled visits.

The major area of my practice is clinical, that is, patient care and consultation. Almost all of my daily responsibilities are related to patient care: participating with the multidisciplinary team in the management of the hospitalized patients, troubleshooting treatment protocol issues, managing patients in BIPOP for their inpatient and intensive ambulatory care, managing ongoing medical problems related to adverse effects of treatment, and providing symptom control for patients in the ambulatory clinic during their post discharge/BIPOP phase of care. In these areas, I am able to bring a new dimension of practice to my 20 years experience as a clinical nurse specialist. Although I am, and always will be a nurse in my approach to and interaction with patients, the added ability to manage medical problems enables me to provide more holistic care for this group of women.

The educational portion of my position is specifically related to the education and mentoring of staff on protocol related issues, on issues related to the development of our transplant program, and on procedure changes specific to this population of breast cancer patients. I also teach the residents and fellows about the breast

cancer transplant protocols since their experience on our unit is their only exposure to this type of patient and this treatment modality. Thus, the educational portion of my position is very specific to my clinical role. Similarly, the organizational component is also specific to my clinical role. I examine patient outcomes, cost, and critical pathway development and data in conjunction with the nurse managers and other members of the multidisciplinary team in an effort to refine our care of the breast cancer patients. All of the patients in the breast bone marrow transplant program are on a critical pathway that defines all components of their care including the medical and nursing plans of care, patient education objectives and content, and clinical outcomes documentation. Ongoing monitoring of resource utilization, systems, and patient outcomes including patient satisfaction, are focused on this selected patient population.

My background as a clinical nurse specialist smoothed my transition to my current position. Because my initial responsibility was in the new program, BIPOP, I worked closely with the team in defining standards, procedures, and policies for the program and in the education of the staff. We are continually refining the program and are providing updates and reviews for staff as the program evolves.

I became a nurse practitioner in order to enrich the quality of my direct patient care and to have more responsibility and accountability for the decision making in the nursing and medical management of women with cancer. This type of practice fulfills these goals. For patients, I am the consistent caregiver over time, and for staff, I am the central resource for information in managing care. In addition, practice in this blended role provides professional flexibility in adapting to continuing changes and challenges in the health care environment.

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